

9/25/06 (5) 9/25  
Agenda 9-25-06  
continued

**TOWN OF ACTON**  
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**Engineering Department**

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**INTERDEPARTMENTAL COMMUNICATION**

**To: Don P. Johnson, Town Manager**

**Date:** July 20, 2006

**From: Engineering Department**

**Subject: Site Plan Special Permit #07/11/06-409 – Edward Bravo - 288 Main Street**

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We have reviewed the site plan for 288 Main Street Acton dated July 10, 2006 and have the following comments.

1. The contractor will be required to apply for a Permit to Construct within a Public Way for any work shown in the right of way for Main Street such the new driveway, removing the old driveway, water services, sidewalk reconstruction, etc...The engineer should revise Site Note #5 to include this permit in the list of permits/approvals that have been identified as required for this project.
2. The engineer has stated in the drainage calculations that the proposed stone infiltration trenches along the building and the pavement will store and recharge enough runoff to attenuate the increased runoff volume due to the post-development conditions for all storms up and including the 100 year storm event. We would like the following information in order to review the engineer's drainage summary and calculations that were submitted with this submission:
  - Copies of the pre and post development drainage subcatchment maps clearly showing the existing and proposed runoff drainage patterns for the project.
  - Copies of the engineer's percolation tests to determine/verify the actual soil infiltration rate. The engineer should show the location of the percolation tests on the plans to ensure that are in the same locations as the proposed recharge trenches. The proposed drainage design relies entirely on the infiltration in order to limit the post development runoff rates to pre-existing conditions. We want to verify that the site parameters that were assumed from the local soil maps accurately reflect the actual soil conditions present on this site.
  - Copies of the engineer's soil logs to verify the elevation of the estimated seasonal high groundwater is below the proposed recharge chambers.

- Copies of the sizing of the individual recharge trenches to verify the available storage and recharge capacity is sufficient to handle the intended drainage subcatchment areas. We want to be sure that each trench such as the driveway recharge trench is sized with enough storage and recharge capacity to handle all the intended runoff that will be directed toward the trench during a 10-year storm event.
  - Copies of the drainage calculations showing the pre and post development runoff rates.
  - The pipe sizing calculations for any drainage pipes shown on the plans such the 8" diameter pipe for the proposed catch basin.
3. Site Note #2 should be revised to state which National Geodetic Vertical Datum was used for the elevations shown on the plans. The Town requires the elevations referenced to the National Geodetic Vertical Datum of 1929.
  4. The engineer needs to show two temporary benchmarks on the plans. The temporary benchmarks should be located on fixed objects that will not be disturbed during construction.
  5. There should be an existing stone road bound marking the Main Street layout along the frontage of this lot. The engineer should label this stone bound on the plans.
  6. There appears to be a symbol shown on the plans for a survey marker located at the rear property corner adjacent to the land owned by the Redstone Condos. This symbol needs to be labeled on the plans and/or added in the Legend.
  7. There should be a note on the plans requiring the existing survey monuments such as the stone bound to be marked in the field prior to construction. There should also be another note on the plans stating that if these property markers are damaged or destroyed during construction that the applicant will hire a registered land surveyor to reset the monuments and certify the new locations.
  8. If there are no existing survey markers located at the property corners, we recommend that the applicant show monumentation such as stone bounds or iron rebars to clearly mark the site. We want to be sure that there are no future encroachment issues onto the streets as well as the abutting properties.
  9. We recommend that the engineer show some additional markers set along the property line behind the proposed units to clearly demarcate this property line for future homeowners. The engineer could show a fence along the property line to ensure that there are no encroachments onto the abutting property owned by James Press.
  10. The engineer should label the individual unit numbers on the plans.
  11. The applicant will need to propose and obtain final approval for the street addresses from the Engineering, Police and Fire Departments. The entire condominium could use 288 Main Street as the street address and each individual condo be identified by the assigned

unit number.

12. If the applicant intends to have a sign identifying the development, the engineer should show the location of this sign on the plans.
13. The applicant has not proposed any sidewalks in conjunction with this project. There is already an existing sidewalk along their frontage on Main Street.
14. The Fire Chief will need to review the plans to ensure they can safely maneuver within the site. Based on our turning templates, an emergency SU-30 vehicle (fire truck) heading southbound on Route 27 cannot turn into this property without driving over the sidewalk and the shoulder or obstructing oncoming traffic. There is no turnaround provided on the site for a fire truck.
15. The engineer should label the pavement radiuses of the intersection roundings to ensure that the access driveway is constructed to allow a fire truck to maneuver within the site.
16. The maneuvering aisle for the proposed garage at the rear of the property is labeled to be 17 feet wide. The Zoning Bylaws specifies that the maneuvering aisle for a standard parking cell to be a minimum of 24 feet wide.
17. The engineer should add some notes or details to the plans stating that the existing driveway will be removed, the curb and sidewalk will be reconstructed and the road shoulder will be stabilized with loam and seed or wood-chips. The new curb shall be the same as the curbing that already exists on Main Street at this location.
18. There should be a note on the plan requiring the sidewalk ramps at the new driveway apron to be constructed in compliance with AAB standards.
19. The engineer should show a curb along down gradient side of the access driveway in order to direct the pavement runoff into the proposed catch basin by Main Street. Otherwise, the runoff could drain onto the grass shoulder and bypass this drainage structure. Our concern is that runoff from the access driveway will not be intercepted by this catch basin and this runoff will discharge directly onto Main Street causing potential icing problems.
20. We would like this catch basin to be relocated as close to the back edge of the existing sidewalk along Main Street as possible to minimize the amount of water that could potentially discharge onto Main Street.
21. We recommend that the proposed driveway be re-graded with a slight high point on the access driveway to Main Street to prevent any excess driveway runoff from discharging onto Main Street when these infiltration trenches become clogged.
22. We are concerned with the use of the infiltration trench alongside the driveway with no inlets provided in the road pavement. Our concern is that the runoff from the driveway will not be able to get into the trench especially during the winter months when snow or ice accumulates on the surface. As a result, the pavement runoff will be directed onto Main Street. We want a drain inlet in the driveway such as a catch basin that would be plowed and kept open during the winter months to ensure that the runoff will be collected and

discharged into the stone trenches.

23. Any drainage inlets used on the site such as the catch basin should have a deep sump and a hooded outlet to minimize the amount of pollutants and debris that enter the infiltration trenches. We want to try and maximize the life expectancy of these infiltration facilities.
24. The engineer should include some additional descriptions in the Drainage System Management Notes so that future homeowners clearly understand how to inspect and maintain the proposed catch basin in the driveway and the driveway and garage recharge trenches. At a minimum, we recommend that the engineer show some cleanouts in the driveway and garage trenches so that the person responsible can inspect these trenches in the same manner as the recharge trench behind the dwelling units. The inspection notes should approximate the amount of time required for these trenches to completely infiltrate the runoff once the rainfall has stopped.
25. The engineer should show the perforated pipes in all the drip line recharge trenches on the plans. We noted that some of these pipes are not shown on the plans. We want to make sure the contractor clearly understands that the perforated drain pipe is required in all the infiltration trenches, except for the driveway infiltration trench.
26. According to Stormwater Management Note #3, the engineer has stated that the driveway areas shall be kept free of sand. We recommend that the legal documents and the maintenance agreements for the proposed complex clearly state that the use of sand during the winter months is prohibited due to the proposed drainage system.
27. The engineer should add details on the plans to specify the construction requirements for items such as but not limited to the proposed catch basin, typical drainage pipe trench cross section, walkways, etc...
28. The detail for the infiltration trenches should specify the depth of the perforated pipes in the stone trenches to ensure the pipe is installed in accordance with the plans.
29. The bituminous concrete paving detail only specifies 9-inches of gravel underneath the driveway pavement. The Town requires a minimum of 12-inches of road gravel underneath the 3-inch layer of pavement.
30. The location of the existing sewer stub and the proposed sewer service should be shown on the plan. We located a label for the proposed sewer service by Main Street, but the pipe is not drawn on the plans.
31. If there is an existing septic system that still exists on the site, the engineer needs to show the approximate location of the existing septic system on the plans along with some notes regarding the removal.
32. The engineer has not shown the approximate locations of the existing utilities such as water, gas, telephone, electric or cable on the plans. The engineer should add a note to the plans stating if the proposed utilities such as electric, telephone and cable TV will be installed underground.

33. The engineer should add cross sections of the two recharge areas shown on the easterly side of the proposed garage (approx. size - 6ft wide by 24 feet long) & adjacent to the proposed driveway (approx size – 6 feet wide by 18 feet long).
34. The engineer should add a note to the plans requiring the catch basin to be cleaned following construction and annually thereafter. There should also be a description in the stormwater management noted to clearly explain how to inspect and maintain the proposed catch basin.
35. We recommend that General Note #21 be revised to state that the limit of work will be staked in the field by a land surveyor instead of the contractor. Our concern is that the proposed work is shown very close to the property lines and we want to be sure that the contractor does not accidentally encroach onto abutting property.
36. There should be an erosion & sedimentation control note that states the contractor is responsible to clean-up any sand, dirt or debris which erodes from the site onto Main Street or private property, and to remove silt or debris that enters any existing drainage system including drainage ditches immediately upon discovery.
37. Erosion Control & Sedimentation Control Note #4 should require the silt fence to be installed along the down gradient side of the project (along Main Street and the land owned by James Press) prior to the start of construction.
38. If proposed, the engineer will need to show the location of a dumpster for the proposed project and the appropriate screening.
39. We recommend that the applicant incorporate some language for the private way into their legal documents and maintenance agreements so that future residents clearly understand the Town will not be responsible for snow plowing or any other related maintenance (i.e. paving or drainage system repairs).
40. The engineer needs to submit a Landscape Plan.

Cc: Garry Rhodes, Building Commissioner

## Legal Notice

BOS/288 MAIN ST. ACTON  
LEGAL NOTICE  
TOWN OF ACTON  
NOTICE OF HEARING

The Acton Board of Selectmen will hold a **public hearing on September 11, 2006, at 7:30 P.M.**, in the Francis Faulkner Room, Town Hall, on the application of **Edward Bravo**, under Section 10.4 of the Zoning Bylaw, for approval of a **Site Plan Special Permit** for the construction of a four-unit multifamily dwelling located at **288 Main Street**, Acton.

The application and accompanying plans may be inspected at the Town Hall during normal business hours.

PETER ASHTON  
WALTER FOSTER  
F. DORE HUNTER  
LAUREN ROSENZWEIG  
ANDREW D. MAGEE

BOARD OF SELECTMEN

AD#11116608  
AC 8/24, 8/31/06